






Automatic Balancing Valves

Series 76T, 76B, 76K, and 76V

WARNING

- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

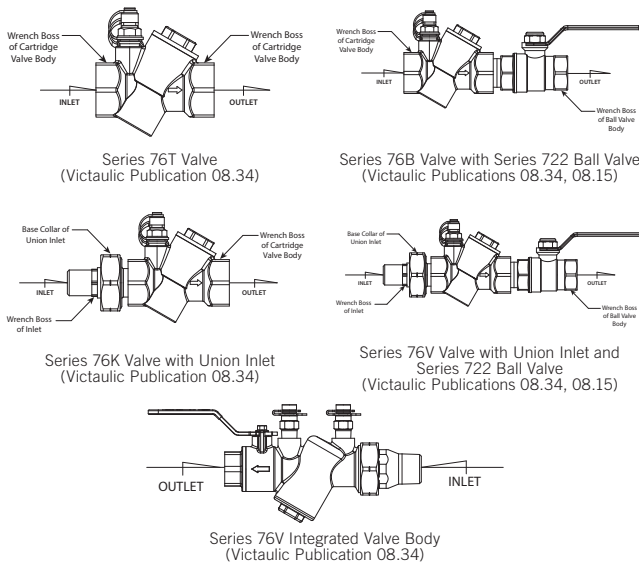
Failure to follow these instructions could result in death or serious personal injury and property damage.

INTRODUCTION

Victaulic Automatic Balancing Valves are rated to 365 psi/25 Bar working pressure within a temperature range of -4° F/-20° C minimum to 250° F/120° C maximum.

Options include MNPT, FNPT, or sweat union inlets, isolation ball valve outlets, and sweat adapter inlets and outlets. Multiple options are available for accommodating various flow rates. Refer to the following page for details.

MAKING THE THREADED CONNECTIONS



1. Verify that all threaded connections are clean and free of any burrs. Apply a small amount of pipe joint compound or PTFE tape to the external threads of all threaded pipe connections. DO NOT use a combination of tape and pipe joint compound. DO NOT get any tape, pipe joint compound, or other foreign material into the flow path. During installation, use a pipe wrench ONLY on the wrench bosses or base collars indicated in the drawings above. **NOTE:** For Series 76B and Series 76V, use caution to prevent unthreading the Series 722 Ball Valve from the valve body.

MAKING THE SOLDERED CONNECTIONS

CAUTION

- Valves shall be in the fully-open position before attempting to solder the ends.

Soldering a valve in the closed or partially-open position may cause damage to internal components, resulting in valve leakage and property damage.

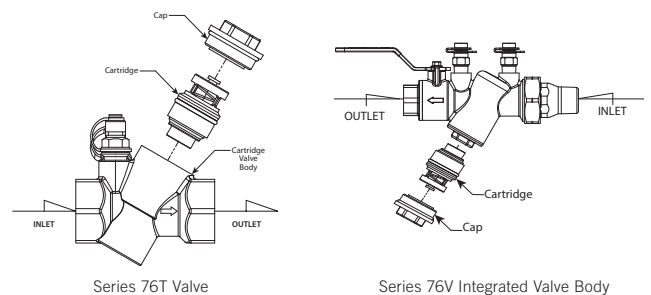
Verify that the valve is installed in the correct direction of flow (refer to applicable flow direction arrow on the valve body) and that the valve is in the fully-open position before attempting to solder the ends. Connections shall be soft soldered with 95/5 (95% tin, 5% antimony) type solder. The valve body shall be heat sunked with a wet cloth or putty at the closest joint to protect internal components, and the flame shall be directed away from the center of the valve body. DO NOT exceed the temperature rating of the valve (250°F/121°C). Valve bodies shall be allowed to cool to room temperature before attempting operation. For sweat union tailpieces and sweat coil hose adapters, remove from valve body/coil hose assembly before soldering to minimize any potential damage.

INSTALLATION REQUIREMENTS

1. The Victaulic Automatic Balancing Valve assembly can be installed in the supply or return line. However, Victaulic recommends installing the valve assembly in the return line to reduce noise, flow instability, and entrapped air. An isolation ball valve shall be installed in the return line of the system, and a Y-strainer with a blow-down valve shall be installed in the supply line upstream of the balancing valve.

1a. Verify that the flow direction arrow on the valve body is facing the direction of flow and that the valve body is rotated to the desired position.

2. **FLUSH THE PIPING SYSTEM BEFORE INSTALLING THE CARTRIDGE.** Verify that the proper cartridge for the required flow rate is available. The valve body will be packaged and shipped with the cartridge and identification tag tied to the body. Refer to the “Quick Reference for Orifice Plate and Cartridge Markings” table on the following page.



3. Remove the cap from the valve body. Install the cartridge with the flow orifice toward the inside of the valve body, as shown above.

3a. Tighten the cap into the valve body until metal-to-metal contact occurs.

NOTICE

- Change-out of the cartridge can be done without having to remove the valve body from the piping system.
- Depressurize and drain the piping system, then remove the cap from the valve body to gain access to the cartridge, as described in step 3 above.

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VALVE SIZE TO CARTRIDGE SIZE COMPATIBILITY TABLE

Size inches	DN	Applicable Cartridge Type
1/2	DN15	10, 11, 20
3/4	DN20	
1	DN25	
1	DN25	30, 40
1 1/4	DN32	
1 1/2	DN40	
2	DN50	

Identification Tag Filled Out and Attached to the Series 76T Valve Body or Series 76V Valve Body at the Factory

6278 Rev B 200076T000

Unit Tag: _____
 Order Code: _____

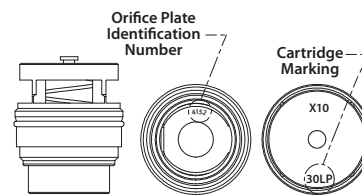
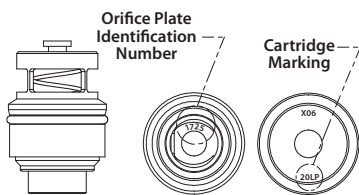
Cartridge Options:
 GPM: _____

Low Pressure: (43.5 psid Maximum)
 High Pressure: (87.0 psid Maximum)

Size:
 1/2" 3/4" 1" High Flow
 1" 1 1/4"
 1 1/2" 2" _____

Options:
 With Ball Valve (76B)
 With Union Inlet (76K)
 With Ball Valve and Union Inlet (76V)

QUICK REFERENCE FOR ORIFICE PLATE AND CARTRIDGE MARKINGS



Flow Rate GPM	Orifice Plate Identification Number	Low-Pressure Cartridge		High-Pressure Cartridge	
		Victaulic Code	Marking	Victaulic Code	Marking
0.11	1150	1A	10LP	-	-
0.15	1170	1B			
0.20	1190	1C			
0.24	1210	1D			
0.33	1230	1E			
0.39	1260	1F			
0.46	1290	1G			
0.50	1300	1H			
0.57	1320	1I			
0.68	1350	1J			
0.77	1370	1K			
0.90	1400	1L			
1.06	1430	1M			
1.23	1460	1N			
1.41	1490	1O			
1.50	1510	1P			
1.80	1540	1Q			
2.10	1570	1R			
2.40	1620	1S			
2.71	1725	1T	11LP	AT	11HP
2.95	1730	1U			
3.24	1735	1V			
3.52	1740	1W			
3.83	1745	1X			
4.12	1750	1Y	20LP	AY	20HP
4.49	2070	2A			
4.76	2074	2B			
5.26	2077	2C			
5.88	2082	2D			
6.53	2086	2E			
6.96	2088	2F			
7.81	2092	2G			
8.07	2094	2H			
9.16	2099	2I			
9.91	2103	2J			
10.21	2106	2K			
10.78	2109	2L			

Flow Rate GPM	Orifice Plate Identification Number	Low-Pressure Cartridge		High-Pressure Cartridge	
		Victaulic Code	Marking	Victaulic Code	Marking
2.97	3073	3A	30LP	CA	30HP
3.79	3082	3B			
4.49	3089	3C			
5.00	3094	3D			
5.24	3096	3E			
5.60	3098	3F			
5.94	3102	3G			
6.54	3107	3H			
6.90	3111	3I			
7.18	3112	3J			
7.99	3118	3K			
8.81	3124	3L			
9.00	3125	3M			
9.56	3129	3N			
10.00	3132	3O			
10.48	3135	3P			
11.00	3138	3Q			
11.62	3142	3R			
12.64	3148	3S			
14.05	3156	3T	40LP	CT	40HP
15.00	3161	3U			
15.35	3163	3V			
16.00	4148	4A			
16.20	4152	4B			
18.00	4156	4C			
19.00	4164	4D			
19.99	4168	4E			
20.99	4173	4F			
21.99	4176	4G			
23.99	4182	4H			
25.99	4191	4I			
28.00	4194	4J			
29.99	4200	4K			
31.99	4205	4L			
33.99	4211	4M			
35.99	4217	4N			
37.99	4222	4O			
39.99	4229	4P			
41.99	4235	4Q			
43.98	4241	4R			
45.98	4248	4S			
47.98	4250	4T			
49.99	4362	4U			

For complete contact information, visit victaulic.com

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